CLAIM + DETAILED DESCRIPTION

[Claim(s)]

[Claim 1] When the message which has two or more spools matched with two or more addresses, respectively, and was set up in the addressee's address and two or more identification information is received, In the message receiving set which stores this message and each identification information in said address and a corresponding spool A means to store in two or more tables matched with two or more addresses, respectively, and the table which corresponds each identification information stored in the spool with the address which had said spool matched, When the message set up in the addressee's address and two or more identification information is received, When it existed and distinguishes from a distinction means to distinguish whether the identification information stored in the table [be / it / under / of said identification information / correspondence] with said address and a match exist, The message receiving set characterized by having a means to forbid storing said message in the addressee's address, and a corresponding spool.

[Claim 2] When the message which has two or more spools matched with two or more addresses, respectively, and was set up in the addressee's address and two or more identification information is received, In the message receiving set which stores this message and each identification information in said address and a corresponding spool When the message set up in two or more tables matched with two or more addresses, respectively, and the addressee's address and two or more identification information is received, When it existed and distinguishes from a distinction means to distinguish whether the identification information stored in the table [be / it / under / of said identification information / correspondence] with said address and a match exist, The message receiving set characterized by having a means to store in said address and a corresponding table each identification information set as said message when it did not exist and distinguishes from a means to forbid storing said message in the addressee's address, and a corresponding spool.

[Claim 3] When the identification information and the match which were stored in the address of the addressee set as said message and a corresponding table existed in the identification information set as the message which received by the distinction means and it distinguishes, Claim 1 characterized by having a means to send the message which forbids storing said message in the addressee's address, and a corresponding spool, and notifies receiving failure to the addresser's address, or a message receiving set given in either of 2.

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the message receiving set which has the feature in the composition which receives the E-mail forwarded to other users, once it is received [the message receiving set which receives the message sent from the computer linked to a computer network system, especially] by the user.
[0002]
[Description of the Prior Art] An E-mail is electronic mail which circulates in a computer network system. The electronic mail system used for circulation of said E-mail is fundamentally constituted as a common computer network system. [the simplest thing] for every [for example,] address beforehand assigned for every user of a system The email server computer which matches the storage region (spool) called a mailbox and has been formed (It is hereafter called a mail server) And it is constituted by two or more terminal units currently installed to the user who has connected with this mail server through the public network, and has moreover received allocation of said address, respectively.
[0003] In all the E-mails called Message ID, unique information is set to the E-mail as identification information. Moreover, the data which constitutes an E-mail is distinguishable to the header showing the attribution information of a message main part and a message. Specifically, said attribution information is information, including the title of an E-mail, the addresser's address, an addressee's address, dispatch time, the message ID like the above-mentioned, etc. When such attribution information sends an E-mail, it is set up by a mail server. Moreover, a mail server adds the address of said addressee who is a new addresser, the address of the destination, dispatch (transfer) time, and the new message ID to the tail end of the header of said E-mail, when the addressee who received a certain E-mail forwards said E-mail to other users.
[0004] Said mail server stores this E-mail in the mailbox matched with the addressee's address set up in the attribution information, when the E-mail sent from the terminal unit is received. And when access of the user who was able to assign said address after it is received, it is reported that the new E-mail has received a message. On the other hand, the user can receive the contents by making the E-mail forward to the terminal unit which said user operates, when the notice in which the new E-mail has received a message from a mail server is received.
[0005]
[Problem to be solved by the invention] When [by the way,] an E-mail is received to the mail server of the above electronic mail systems It inspects whether the contents were received in the past, and when it turns out for the thing and the contents which were received in the past to be the same, the E-mail is not stored in the mailbox matched with the addressee's address, namely, the mechanism in which reception is refused is not established.
[0006] Therefore, the E-mail of the same contents as the E-mail received in the past may be received again. Such a situation is often generated in process in which an E-mail relays two or more users, and is especially distributed to many users. [the E-mail which indicated the connection-for-business matter inside a company] specifically When [which is the dispatch origin] being transmitted to the subordinate's section

chief like said group leader to the subordinate's member from said section chief from a director general to the subordinate's group leader at passing <a thing> on, for example, It may be dealt with by two kinds with the case where bundle up to all the employees and below the subordinate's group leader is sent to them from the section chief who received said director's general E-mail.

[0007] Drawing 7 is an explanatory view explaining process in which relay distribution of the E-mail is carried out. The figure expresses the example distributed according to the organization system below a director general, as the E-mail which indicated the connection-for-business matter mentioned above, and let it be the beginning for the director general to have addressed and sent the E-mail based on a manuscript to the subordinate's section chief.

[0008] A director general is the E-mail sent to the section chief, and 1 is set up in A as a message ID, and is stored in a section chief's mailbox 2. The section chief who received E-mail 1 addresses it to the subordinate's group leader, and transmits it. 3 is the E-mail which the section chief forwarded to the group leader, and B is set up as a new message ID and it is stored in a group leader's mailbox 4. In addition, the message ID (in E-mail 3, it is A) set up in the past in the figure brace is written. The group leader who received E-mail 3 addresses and transmits it to two or more members of the subordinate. 5 is the E-mail which the group leader forwarded to each addressing to a member, and C is set up as a new message ID and it is stored in the mailboxes 6, 6, --, 6 of each member.

[0009] And when a section chief forwards E-mail 7 of the same contents as E-mail 3 to all the addressing to an employee by a certain mistake below in the subordinate's group leader, E-mail 7 is set up in D as a message ID, and is stored in a group leader's mailbox 4 and the mailboxes 6, 6, --, 6 of each member. That is, E-mail 5 and E-mail 7 whose contents correspond mutually will be stored in the mailboxes 6, 6, --, 6 of each member, respectively, and the capacity will be consumed vainly. Also in a group leader's mailbox 4, the same fault (E-mail 3 and E-mail 7) arises. Moreover, when two or more E-mails stored by doing in this way are what notifies operating directions, confusion of a directions system is produced in the member and group leader who receive it, and it interferes with smooth execution of business.

[0010] Moreover, in the member and group leader of the addressee side, the excessive burden concerning the arrangement of an E-mail which received is produced. Furthermore, since it cannot have [that the above faults occur and] a concern in the addresser side (section chief) of an E-mail, a device which makes it possible is called for.

[0011] This invention is made in view of this situation, and aims at offer of a message receiving set with which said user does not receive again the E-mail of the same contents as what the user received in the past.

[0012]

[Means for solving problem] When the message which the message receiving set concerning the 1st invention has two or more spools matched with two or more addresses, respectively, and was set up in the addressee's address and two or more identification information is received, In the message receiving set which stores this message and each identification information in said address and a corresponding spool A means to store in two or more tables matched with two or more addresses, respectively, and the table which corresponds each identification information stored in the spool with the address which had said spool matched, When the message set up in the addressee's address and two or more identification information is received, When it existed and distinguishes from a distinction means to distinguish whether the identification

information stored in the table [be / it / under / of said identification information / correspondence] with said address and a match exist, It is characterized by having a means to forbid storing said message in the addressee's address, and a corresponding spool.

[0013] When the message which the message receiving set concerning the 2nd invention has two or more spools matched with two or more addresses, respectively, and was set up in the addressee's address and two or more identification information is received, In the message receiving set which stores this message and each identification information in said address and a corresponding spool When the message set up in two or more tables matched with two or more addresses, respectively, and the addressee's address and two or more identification information is received, When it existed and distinguishes from a distinction means to distinguish whether the identification information stored in the table [be / it / under / of said identification information / correspondence] with said address and a match exist, When it did not exist with a means to forbid storing said message in the addressee's address, and a corresponding spool and distinguishes, it is characterized by having a means to store in said address and a corresponding table each identification information set as said message.

[0014] [the message receiving set concerning the 3rd invention] in the identification information set as the message which received by the distinction means When the identification information and the match which were stored in the address of the addressee set as said message and a corresponding table existed and it distinguishes, It forbids storing said message in the addressee's address, and a corresponding spool, and is characterized by having with a means to send the message which notifies receiving failure to the addresser's address.

[0015] There is the feature that the message ID which Message ID is not deleted by the transfer processing, namely, was given once is inherited by the destination in an E-mail. Therefore, in E-mail 5 and E-mail 7 in drawing 7 , although the messages ID differ, since the message ID (A) set up in the past is in agreement, it can be judged that both contents are the same. Also in the mailbox 4 of the group leader by whom E-mail 3 and E-mail 7 were stored, it is the same.

[0016] In the message receiving set concerning this invention When it distinguished and existed [whether the identification information set as the message which said user received in the past, and a match exist, and] in the identification information of the message which a certain user received based on a principle which was mentioned above and distinguishes, By not carrying out reception of the E-mail, the message and the contents which were received in the past inhibit reception of the same message for the second time.

[0017]

[Mode for carrying out the invention] [Work example 1] Drawing 1 is the block diagram showing the composition of the mail server which is a message receiving set concerning this invention. in a figure -- 11, 12, --, 13 It connects through the mail server and public network which are the terminal unit currently installed to the user who uses an E-mail, and are principal matter equipment. Moreover, 14 is other mail servers connected through the mail server and public network of principal matter equipment.

[0018] 15 has formed the mailboxes 15a, 15b, --, 15c matched with the address that it is the spool set as the parts of a hard disk drive etc., and an E-mail should be stored. Reference has made possible the E-mail stored in Mailboxes 15a, 15b, --, 15c from the table registration section 16. Moreover, it is the database which formed the duplication check tables 17a, 17b, --, 17c matched with the address that the inspection information for inspecting whether 17 is the same as that of that by which the contents of the received E-mail

were received in the past in the address should be stored. The table registration section 16 receives the trigger signal given for every predetermined time interval from a timer 18. [header / of each E-mail stored in Mailboxes 15a, 15b, --, 15c] The title (Subject) Dispatch time (Date) And message ID which is identification information (Message-ID) Each information is extracted as inspection information and it stores in the address and the corresponding duplication check tables 17a, 17b, --, 17c.

[0019] On the other hand, 19 is the terminal units 11, 12, --, 13. Or when an E-mail is received from a mail server 14, the contents of this E-mail are the duplication mail inspection departments which inspect whether it is the same as that of what received in the past with reference to the duplication check tables 17a, 17b, --, 17c. Moreover, the duplication mail inspection department 19 gives to the notice dispatch section 22 of duplication which extracts and mentions an addresser's address later from the header of an E-mail which received. Moreover, 20 is based on SMTP (Simple Mail Transfer Protocol). It is the SMTP receive section which performs reception of an E-mail, and the processing which stores the E-mail distinguished when not the same as that of what the contents received in the past by the duplication mail inspection department 19 in the mailboxes 15a, 15b, --, 15c matched with the address is borne.

[0020] Moreover, the E-mail which notifies the purport as what received in the past that the contents of 21 of the received E-mail are the same [that the predetermined title and predetermined message of (calling it duplication notice mail hereafter) should be stored, respectively] Title table 21a And message table 21b It is the formed database and reference has made possible the title and message which were stored from the notice dispatch section 22 of duplication which sends duplication notice mail based on SMTP.

[0021] The notice dispatch section 22 of duplication is the information and the title table 21a which specify whether duplication notice mail is sent. And message table 21b Information set table 22a including the information which specifies the title and message which were stored, respectively It has. The address information of the inspection result of the purport as what received in the past that the contents of the E-mail received from the duplication mail inspection department 19 are the same, and the addresser of said E-mail is received. Information set table 22a Duplication notice mail is created based on setup information, it addresses to said addresser, and said duplication notice mail is sent.

[0022] Drawing 2 is the title table 21a and a message table 21b. And information set table 22a It is the explanatory view showing an example. In a figure, it is the title table 21a. It matches with the identification number 1, "duplication mail" is matched with the identification number 2, and "transmitting mail duplication guidance" is stored. Message table 21b It matches with the identification number 1, "finishing [duplication mail:transmission]" is matched with the identification number 2, and it stores "the mail transmitted this time is ending with transmitting in the past." Information set table 22a "It transmits", "1", and "2" are specified, respectively about no ready for sending, a title, and each setting item of the message.

[0023] Drawing 3 is a flow chart which shows the procedure of the mail server which is a message receiving set concerning this invention. Said mail server for every predetermined time interval [with the table registration section 16] Inspection information is extracted from the header of each E-mail stored in Mailboxes 15b, 15c, --, 15d, and it stores in the address and the corresponding duplication check tables 17a, 17b, --, 17c (S1). And when it distinguishes whether the E-mail was received (S2), it had not received and it distinguishes, processing is returned to S1 and subsequent procedures are repeated.

[0024] When it distinguishes having received the E-mail in S2, it is distinguished whether the inspection information stored in the duplication check tables 17a, 17b, --, 17c and a match exist in the attribution

information set as the header of the E-mail (S3). When it existed and distinguishes, by the notice dispatch section 22 of duplication, it addresses to the addresser of an E-mail who received, duplication notice mail is sent (S4), processing is returned to S1, and subsequent procedures are repeated. When the inspection information and match which are stored in the duplication check tables 17a, 17b, --, 17c did not exist in the attribution information of the E-mail received in S3 and it distinguishes, By the SMTP receive section 20, said E-mail is stored in the mailbox matched with the addressee's address (S5), processing is returned to S1, and subsequent procedures are repeated.

[0025] Drawing 4 is the explanatory view showing an example of the duplication notice mail which notifies the purport as what received in the past that the contents of the received E-mail are the same. [with the mail server by the side of the addressee who is the message receiving set of principal matter invention] when this duplication notice mail is addressed from an addresser "Yato @ Osaka office" to an addressee "Ichihara @ Tokushima head office" and an E-mail is sent Information set table 22a shown in above-mentioned drawing 2 in the situation distinguished as said addressee had already received the E-mail of the same contents It is created based on the set point.

[0026] In a header, it is the title. (Subject) It carries out and is the title table 21a. "Duplication mail" matched with the identification number 1 is appropriated. Moreover, an addresser's address (From) It carries out and the predetermined address "sysop @ Tokushima head office" is appropriated. Moreover, an addressee's address (To) It carries out and the "Yato @ Osaka office" which is the addresser of the E-mail concerning dispatch is appropriated for this duplication notice mail. furthermore -- again -- dispatch time (Date) And message ID (Message-ID) **** -- suitable information is appropriated by the mail server.

[0027] Moreover, in a message, it is a message table 21b. It has appropriated "the mail transmitted this time being ending with transmitting in the past". [which was matched with the identification number 2] Moreover, it continues in said message. The header of the E-mail built over duplication notice mail at dispatch to an addressee's address (To) Message ID (Message-ID) and title (Subject) And dispatch time (Date) By extracting and adding information, [the addressee of duplication notice mail] The key for getting to know to whom the E-mail of attention is addressed and sent and what time is it and, as for some of the title, the dispatch time is further again is given.

[0028] [Work example 2] Drawing 5 is the block diagram showing other composition of the mail server which is a message receiving set concerning this invention. in a figure -- 23 -- terminal units 11, 12, --, 13 Or when an E-mail is received from a mail server 14, the contents of this E-mail are the duplication mail inspection departments which inspect whether it is the same as that of what received in the past with reference to the duplication check tables 17a, 17b, --, 17c. Moreover, from the header of an E-mail which received, the duplication mail inspection department 23 extracts an addresser's address, and gives to the notice dispatch section 22 of duplication.

[0029] [header / of the E-mail distinguished when 24 was not the same as that of what the contents received in the past by the duplication mail inspection department 23] The title (Subject) Dispatch time (Date) And message ID (Message-id) It is the table registration section which extracts each information as inspection information and is stored in the address and the corresponding duplication check tables 17a, 17b, --, 17c. About the same component as other drawing 1 , a same sign is attached and explanation is omitted.

[0030] Drawing 6 is a flow chart which shows the procedure of the mail server which is a message receiving set concerning this invention. said mail server distinguishes whether the E-mail was received (S11) -- when

it had not received and distinguishes, processing is returned to S11 and subsequent procedures are repeated.

[0031] When it distinguishes having received the E-mail in S11, it is distinguished whether the inspection information stored in the duplication check tables 17a, 17b, --, 17c and a match exist in the attribution information of the E-mail (S12). when it existed and distinguishes, by the notice dispatch section 22 of duplication, it addresses to the addresser of an E-mail who received, and duplication notice mail is sent (S13) -- processing is returned to S11 and subsequent procedures are repeated.

[0032] When the inspection information and match which are stored in the duplication check tables 17a, 17b, --, 17c did not exist in the attribution information of the E-mail received in S12 and it distinguishes, Inspection information is extracted from the header of said E-mail, and it stores in the address and the corresponding duplication check tables 17a, 17b, --, 17c (S14). and said E-mail is stored in the mailbox matched with the addressee's address by the SMTP receive section 20 (S15) -- processing is returned to S11 and subsequent procedures are repeated.

[0033]

[Effect of the Invention] Depending on the message receiving set of the above **** this invention Based on whether the identification information of the message transmitted this time and the message which received in the past is in agreement, it is distinguished whether both contents are the same. Since it controls not to carry out reception of the message of the same contents and the situation of storing two or more messages of the same contents in a spool is avoided, the capacity is effectively utilizable. Moreover, generating of the situation which receives two or more messages which notify the same operating directions can be prevented, and confusion of the side which receives a message can be called off. Furthermore, the burden which relates to arrangement of the message of the side which receives a message again is mitigable.

[0034] Moreover, when reception of a message is not carried out depending on the message receiving set of the 3rd invention, in order to turn up and send the message which notifies that to the origination side of said message, it becomes possible to concern that in said origination side.

[Translation done.]